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## SEQUENCE LISTING

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<120> Compositions and Methods Relating to Breast Specific Genes and Proteins

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<160> 137

<170> PatentIn version 3.1

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cacggaggaa gagatgcaaa gaacaacgac aaatgaacac aaaaaacgac cacaacaga  1020
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<212> DNA
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<223> a, c, g or t

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<223> a, c, g or t

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ccccagggaa gggggggggtc tgtgaaaata ataacaaaa atgtgttgaa agaaaagggg  180
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 aagtctctgc cctccagtga actttttaag ggcaggagcc atctttgtaa gcccagcact 180  
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gatcactcct aatgttaaac cagagcgaca gagatatacg catctagagg gcgaagaata      360
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<212> DNA
<213> Homo sapien

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aaaaaaaaaa tttcagtcta aaaacacccc tggatttgtc ggtgggcgga tcaagagagg      240
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gtgtgtccgc cgttgtgtgt gagaaaatgt ggtgtctacc gccgcgcgcc acaaatatct      480
cccacacaca aatatatcga gcgcaaacga acaacgggag gaggcggagc agccgacgaa      540
cacggagcag ggcaggtag gaaaagcccg ggcaaacagg agacacagga agcaaccgaa      600
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<213> Homo sapien

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<212> DNA  
<213> Homo sapien

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cttgagccca ggagtttgag accagcctgg gcaacatggc aaaaccccat ctctacaaaa 180  
aatacaaaaa gtaggccggg cacggtggtt cacacctgta atcccggcat tttgggaggc 240  
cgagataggt ggatcacctg aagtcagggtg tttgagacca gcctggccaa catggtggaa 300  
cccaatctct actaaaaata caaaaaaact agccggatat ggtggcgggt gcctgtaatc 360  
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cacctacccc tttcccact agcttccg 448

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ctctataaga aatcatacag atagggtccc gggtatggta gattgtccat aataggttca 180  
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gttggtcag actataccca taagcgcgta tactgttaga aaatgataga tgtcaggtta 300  
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10

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g 1441

<210> 18



<211> 581  
 <212> DNA  
 <213> Homo sapien

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 aaaaaatggg ggggggttgg tggattgggg ggcaaccaat ttaaaactcg tgtttttccc 180  
 cctagggagg ttagggagaa gtatatattcc caattttccc caaacggggg gttatgaggt 240  
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 gccccccata ttttatagag caccaaattgt agtgtgggct ccataattcc aacatagtta 420  
 cttgggggtgt tactactaga agtgcacccc gtgataatcc actttctcca agataactcc 480  
 ccgtgaagcg tgggcgggta cacaggggct cactagcgtg ttcccgggtg gtgatcatgg 540  
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<210> 19  
 <211> 901  
 <212> DNA  
 <213> Homo sapien

<400> 19  
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 gtaataaggc ggatcattgc agtattgatg cgctctatcc gacttcctcg tctccacatg 180  
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 aaaagcggcc gcgtttgttt aggtgttata tccaatatgt gctaccgaaa tcccactaaa 420  
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 tattttcaac atacggatag ataggtcgta gcgcaccaa ggtaggggtg tgtgcataaa 720  
 cccccagggt tagctcgaa gcacgcctat cggagactat ggattgagcc gcccgataag 780  
 cacactttag cccatgcgag agcactggta agattacagc aggagattaa agcagcgaaa 840

agagatctaa gtgtagacac taagatagta gaaaaaggta tggatgagc cataaaacaa 900

a 901

<210> 20  
<211> 658  
<212> DNA  
<213> Homo sapien

<220>  
<221> misc\_feature  
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<220>  
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<222> (128)..(128)  
<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

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<222> (199)..(199)  
<223> a, c, g or t

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<223> a, c, g or t

<220>  
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<222> (209)..(210)  
<223> a, c, g or t

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<222> (216)..(216)  
<223> a, c, g or t

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<223> a, c, g or t

<220>  
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<223> a, c, g or t

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<223> a, c, g or t

<220>  
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<223> a, c, g or t

<220>  
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<223> a, c, g or t

<220>  
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<223> a, c, g or t

<220>  
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<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

<220>  
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<222> (336)..(337)  
<223> a, c, g or t

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<223> a, c, g or t

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<223> a, c, g or t

<220>  
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<222> (521)..(522)  
<223> a, c, g or t

<400> 20  
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ccntgcgnag atcacaagta gagtgacacg tggcacgtgg cttagcacga agagtgtact 180  
gcnnccagc atagacnct gtgnatgcnn taccantgcg natgggtcct actntggcct 240  
tccccctttt cttccacagn actacagagn tgtnnnccct gtagngcgtc tccnnctcgn 300  
gnannacagn ntgcctnnc aaanntcctg nnaccncaa tgggaccag cccatggcgc 360  
gacacgacga ctgggttggc acggccacaa actgccacct ttactacgac gacttttcct 420  
tattggcctg gcgaacgcgc tgtgtttcct cccccacaan nntttgtttc gtcgacatac 480  
ttccaccctc gnnttttaat agacatggtc tcgaacctcg nntcttgacc caaaaacaaa 540  
acaacacaca aaacaacaa acggcttggg cgcgtaatcc ggtgggcaa agcggggtcc 600  
ccgtggggga cattgggtaa ccgggtccaa aattcccaca aaattcgcgg acaaagtg 658

<210> 21  
<211> 969  
<212> DNA  
<213> Homo sapien

<220>  
<221> misc\_feature  
<222> (447)..(447)  
<223> a, c, g or t

<400> 21  
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gtcgaaggcg gctcgcaaga agtcttgaag agggctcaag agtaaccgtt gttcccactc 180  
tatgcagaag aagtatggcc aagtcctcca tgtgtgatcg ccggttgag caccgtgtgc 240  
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aaccgtcctg gcaagtatcc gtctcctcgc tggaagctgt cttagtgaag tggggcgatc 360  
gcatttgctc cgtccactag cattctccca gtcgcacatc tagcgtgtgt ccaccatgca 420  
gtgagccatg cggcctgttg ccatccnctt gagacgttgg gggtgtgtaac gtcagagcag 480  
gattaagacg gttctctcaa cttgttgccg gtcctggata tgtggacaca ggggtgctac 540  
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gtttaacaac agagagaaac agacagaaga atgagaacac ataagacaag tccctctgga 660  
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agcgaacata atcaggcgac cagaagagaa agacaaaaaa agcgaggcca gagtaacagt 840

cgagaccgag cgacgaaggc gggggcacgc aggagcacat gggaggagat tggcaggacg 900  
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 ggggggaaa 969

<210> 22  
 <211> 709  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (243)..(243)  
 <223> a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (617)..(617)  
 <223> a, c, g or t

<400> 22  
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 tccggttccc cgggcggggg gtaaaagggg gacaaggggt ttttcaccgg ttgtggcctt 180  
 cgggggttgg gagggcttta aaaccaccca ctctccgcca aacaatcttt gtgcgacgtt 240  
 ttcttatatc ttgtgtgttt aacaataaca acgagagtaa tatctcccc tcgtgtagt 300  
 tcgcaacacc cgtggctcca cgccacttct ctctccaaca acacgtgctt ggggggtgtg 360  
 acccgcgagg cggctcaaga gcgcgtgggc gccgctggga gtgggaacaa gttgggtctc 420  
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 cggcgtgctg cagccagacc acgcgaaagt ccagagaaag atgcaagacc aagcacgaac 540  
 gaataaagag caacagacaa ggaccaaacg cagcgaacaa gcaagctagc aagacgacca 600  
 agcagcacag aaccagnaga gcaccaacaa gcaagacaga caaacgcaag ccagcaggag 660  
 acacaaacgc aaagcaaaca caacagaaca acctaagata cgcaagtag 709

<210> 23  
 <211> 402  
 <212> DNA  
 <213> Homo sapien

<400> 23  
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18

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aagattgatg attatcttga tcaaaatgaa atgataatat tgataatgta aaatatgtct 180  
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aaatacatgt tctatataaa gagtatgctc ctattggatg aaaaaaacct aaaaaaacia 300  
aaaaaaaaaa aaaaaaaaaa aaaaagggtg ggggaactgg gcaaagggtg cccgggggga 360  
attgggtatc ggtcaaaatc cacaaaaaat aggaggaaag tg 402

<210> 24  
<211> 1441  
<212> DNA  
<213> Homo sapien

<220>  
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<222> (155)..(155)  
<223> a, c, g or t

<220>  
<221> misc\_feature  
<222> (247)..(247)  
<223> a, c, g or t

<220>  
<221> misc\_feature  
<222> (394)..(394)  
<223> a, c, g or t

<220>  
<221> misc\_feature  
<222> (533)..(533)  
<223> a, c, g or t

<400> 24  
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gagttgtgca agaggtgggc atagtgggtc tcacnaaaac acatctcaga gtgggtttaa 180  
accacatatt tattgtgaag aaacaaaatt atatttaaaa tgtgtggtgt ggcgtctct 240  
ataaaanagg cccatattct ccctctccaa ggtctctata aacottgtgt ggtaattgtg 300  
tgatatatta taagcgacac atgtgagagg tttatattgt gtgcgttacc aatctcatat 360  
gtgttaaaac aagcgagag aatatagac gcanctataa gggcgagaga aatatataac 420  
aatatgtgtg ggcacagag agcgggtatg tgtgcacata ttctctcaca cagagatata 480

19

gcgacattct ctcttatata aaattctcac gggatttcta cagcgctctc tcnacacaag 540  
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<210> 25  
 <211> 854  
 <212> DNA  
 <213> Homo sapien

<400> 25  
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 agggagggtta tcgtgagctg cgtaggagag ggggtggggg cgggccaccc ccgggggttg 240  
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 agagggggag gatgtaggag ggaggatcca cagccgggat gccgtagcaa gacatactcc 480  
 accacaaaac atccttcgga ggtggcgagc aaccacgccg taaggaagag cctctactct 540



cgaagaaaga gagagacaat ccagatagaa ccgcagcaga gggagagagc gagggcacct. 600  
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tgagaagaaa tatataccaa cccgggtggg aaaaaacaat tagcaaacia actgcactac 720  
tgcccacgat aaaaaaactg gctggcgaga caccaagcgc gtgcaacaaa agctagtata 780  
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ttaacagcaa aaga 854

<210> 26  
<211> 1672  
<212> DNA  
<213> Homo sapien

<220>  
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<222> (568)..(568)  
<223> a, c, g or t

<220>  
<221> misc\_feature  
<222> (1050)..(1050)  
<223> a, c, g or t

<220>  
<221> misc\_feature  
<222> (1364)..(1364)  
<223> a, c, g or t

<400> 26  
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gtggggggaa aaaaaaatct caaatattac gcgtgattaa ttggttagtg tgcctccaaa 180  
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gaattatcta attcttatat acaactcaca ctacagctaa catatatata ctactacaca	1560
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<210> 27  
 <211> 698  
 <212> DNA  
 <213> Homo sapien

<400> 27	
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ccaggagaag gaggtgggcc ctgggagaaa ttaattaaaa aaaagtactg tgaaaagaaa	180
agggtgggtg gtgttaaagt cgcattggcc aagggtgggc tccctaagcg ctacgcgttc	240
tcatgagaga aggtgaaaaa cctctttgat agaaaagaga tctcatgtga gaaaacgcca	300
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acactctata gcgtgtaacc accactcgcg tgtgggtggg tgtctccgag atttctctct	420
actacaacta gagagcgcgg acacagagt taaacaccac gagggtgtct ccccttgggg	480
tgctccatgg tgtgaaaaaa gagagcacac atataagatc tcgcgtgtat atctcacaaa	540

22

taaaaaagtc cttggtgggc gataaacctc cgagggcaca caaaaagagt gtgttctccc 600  
gccgtgtgtg tgaaaaaagt gtgtatatcc cccgcgcca caaaaattc tccacacaaa 660  
aaatattttg gccgaaaca aaaattggtg taacaaaa 698

<210> 28  
<211> 393  
<212> DNA  
<213> Homo sapien

<400> 28  
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gcgtgcagcc ctactgtccc ttactggggc agcagagggc ttcggaggca gaagtgaggc 120  
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ggggaccagg atgggagaat gaggagtaaa atgctcacgg caaagtcagc agcactggta 240  
agccaagact gagaaataca aggttgcttg tctgaccca atctgcttga aacctgactc 300  
tgcttctctc atttgtcttc ctacctact cacataattc actcattgac tcactcattc 360  
accagatatt tattgacctg ctattataag ctt 393

<210> 29  
<211> 3470  
<212> DNA  
<213> Homo sapien

<400> 29  
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24

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<212> DNA
<213> Homo sapien

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<210> 31

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 <213> Homo sapien

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 <211> 4908  
 <212> DNA  
 <213> Homo sapien

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<211> 251
<212> DNA
<213> Homo sapien

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<210> 35
<211> 1331
<212> DNA
<213> Homo sapien

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30

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<211> 224
<212> DNA
<213> Homo sapien

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acaattaatt cactaaatac agaacttaac taaggacaaa aatttaaaga tcagcattct   180
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<210> 37
<211> 1547
<212> DNA
<213> Homo sapien

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<400> 37
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<211> 710
<212> DNA
<213> Homo sapien

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 <213> Homo sapien

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 <213> Homo sapien

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<213> Homo sapien

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 <213> Homo sapien

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<400> 44  
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 atgcgtggcg cggcgaggtg gttgattgag gttaaatacat caaccactag ccccttccca 120  
 aaatcagcga gatatttgat gattaagtga ttcattgggt atgttctggc tactgatgtt 180  
 actgaaatct gcaatcgtgt atgtttttta atttgttgc tttgtatttg taattttatg 240  
 acatttcgaa gtttctgtgt cttactcctt ttaattaat tttctgcacg ttgctttttt 300  
 ctctttgttt ttaattccat acagagtatt caattcttga aacacattaa aataatttgc 360  
 ttgctaggg 369

<210> 45  
 <211> 1019  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (21)..(21)  
 <223> a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (284)..(383)  
 <223> a, c, g or t

<400> 45  
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 ggagagctaa gcagttagga gatagtctac tctagaaaac taagaattat ttaaggcaa 180  
 agaccatgct ctgatcaacc agagaagata ctatcaatag cccaggacta tcacagctga 240  
 atggaatggg atgggacatt ggtgtctctg tcaactgatg aacnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
 nnnnnnnnnn nnnnnnnnnn nnngaattgt cctttggttg ccttagttac cagagttgaa 420  
 tgaatgtaca catttcgga gtgggggggc agagcggata accccttcct tgtctgtttc 480  
 ctttgagaaa ggacactcca ccttttcaaa ggtacttaaa gccatcttta cagattgctt 540  
 gtaatgtaag gaaagagtca tgtcctttgg attgattgag gttaaatacat caaccactag 600

40

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ccccctttca aaatcagcga gatatttgat gattaagtga ttcattgggt atgttctggc 660
tactgatgtt actgaaatct gcaatcgtgt atgtttttta atttggtgct tttgtatttg 720
taattttatg acatttcgaa gtttctgtgt cttaactctt ttttaattaat tttctgcacg 780
ttgctttttt tctctttggt ttttaattcca tacagagtat tcaattcttg aaacacatta 840
aaataatttg cttgctaggg tatggtttat ttataatta cattcctagt cttgtgtggg 900
tattgtaatg atgtctggtc ctaatttctc tgcccgtatg aaaaagaacc ccttgctgtg 960
tgatcctaaa tataatttgg aaattaaaaa aacacacaca caaacaccaa aacaaaaag 1019

```

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<210> 46
<211> 589
<212> DNA
<213> Homo sapien

```

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<400> 46
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gttctctttg agatggaaac gagccggctg ctcgtgttca tttctgtttt gcttttctac 180
tgttgaatga ataccaccac agtgaaggga ttattggaat gttttcgaaa cacaaaataa 240
ccattttgta acttctgctg tatagttttc ttttctgtg gatggagtgt gtaactacag 300
cacacattta aatgaaatct ctgttaatcg cctctgcact atcttagcaa atattttaaa 360
cctaaagcta aatgttgaaa taaagggtga gagcattact gagatgcaaa tggagctctc 420
tctggctcct aattaatgac ctgcaaaaaa aagatcaaaa aaaaaaaagt ttgggggttat 480
ctcactggct catacgtatg ttccctgttt gaatttgttt tccggttcaa atttccacac 540
aatttcgcac aagtgggcag aaaacgagaa cgggagaaag aggaaagga 589

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<210> 47
<211> 675
<212> DNA
<213> Homo sapien

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<400> 47
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gctctcctcc tgccctcgaa ggaggactgg gaagatttcc acgctgagat tcccaggcgc 180
aaactgcagc tgatgcgttc ctcgaggttc tctttgagat ggaaacgagc cggctgctcg 240
tgttcatttc tgttttgctt ttctactgtt gaatgaatac caccacagtg aagggattat 300
tggaatgttt tcgaaacaca aaataaccat tttgtaactt ctgctgtata gttttctttt 360

```

cctgtggatg gagtgtgtaa ctacagcaca cattttaaag aaatctctgt taatcgccctc 420  
tgcactatct tagcaaatat tttaaacctt aagctaaatg ttgaaataaa ggtgtagagc 480  
attactgaga tgcaaatgga gctctctctg gctcctaatt aatgacctgc aaaaaaaga 540  
tcaaaaaaaaa aaaagtttgg gggtatctca ctggctcata cgtatgttcc ctgtttgaat 600  
ttgttttccg gttcaaattt ccacacaatt tcgcacaagt gggcagaaaa cgagaacggg 660  
agaaagagga aagga 675

<210> 48  
<211> 420  
<212> DNA  
<213> Homo sapien

<400> 48  
actggtggta gggtacatta gtggatcaca cacagtgtac tacttggccc tgtaaatgg 60  
tgcctgtgga ctagggtgag tttggataag tatgtatgta tgtatgagtt atagcaaaat 120  
gaagtagatt gaatcaagtc catgcaaaag cagtaaaaca gttattaatt gttaatTTTT 180  
taaaaattaa aacgttaata aaacagtttg taatgttttg ctagtgtctt ttataaaatg 240  
atgtaagtta cagtggaagt cttcacagga cttgtgtctt tcctggaact attgaaatgt 300  
aatttaggat gatttgatct tccatctcaa gttgtcaaca tggctgtgtc attctggctt 360  
acatatgttt tatttaacaa aattctagtc aagggtataag gccttaatga agacaagctt 420

<210> 49  
<211> 846  
<212> DNA  
<213> Homo sapien

<400> 49  
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acaacaacca cttctcagta gaaagttaag aataacattt aaaaacatat tcatgtttta 120  
gagaatgaat gtgccatcgt tgtatattaa ataaaaataa aagattaacc agctataaga 180  
acactacaat tacaactaga gtggcagtgt tttttaacta ataaaagtat acatgtttat 240  
aagtgcagta tacctgaaat cttgatgttt gtcaatactt atggttgctt caaagataaa 300  
tttatgtgat ttttttgaa agatgtgtat taatttaaatt aataccaga aaaattataa 360  
cttaaaaatt gcagttttca atatgagaat catttatgtg tgtaaatact caactaagaa 420  
aatcaaaaag tgtggtataa tattacaaga aaaaatatc aaaatggaaa gtccatttat 480  
gaatgtatta atattaaaat ccaaagttat gtttttttat aatgtctaca ttataatgtt 540

42

```

tacaaaggcc ataaaatcat ttcagaaagt tctcatcctc cagatatgac caataaaact   600
tcatttccta gaaaaaagaa gaaatgttat aatttatacc aagatgaagt aagatttgga   660
attacgtata cttacacctt cattttggat ttgattttga atgcatgctt aaaattctga   720
tattcatatg acttattttac catcaaaatt gatttgattt ttgctctca ctttctatat   780
gttcttgtcc, aaaaaaaaaa aaaactgggt tatctgcctc ttccttgatt ttctcaccca   840
aaaaat                                                                    846

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<210> 50
<211> 2347
<212> DNA
<213> Homo sapien

```

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<220>
<221> misc_feature
<222> (207)..(230)
<223> a, c, g or t

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<400> 50
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caatagctga gattaaatag gaagctctaa ccttagtttt ctgatttctt ttttaagttc   120
agactatatt ctaaacgaat gatcagaggt aggtgatcaa ggaattaaat tgaaagcaga   180
agtagtaatt tcaacaaaac caagcannnn nnnnnnnnnn nnnnnnnnnn gatggatttt   240
ggctctgtcg ccaggctgga ttacagtgag ccaattttcg cggccatttg cacttcacgc   300
ctgtgggaga cagggaagg cttcttgtct caaaaaaag aaaatataaa tggaaatacc   360
agaatcacc cttgatagag aattccattt ggcaaagtac aaacaaccac ttctcagtag   420
aaagttaaga ataacattta aaaacatatt catgttttag agaacgaatg tgccatcggt   480
gtatattaaa taaaaataaa agattaacca gctataagaa cactacaatt acaactagag   540
tggcagtggt ttttaactaa taaaagtata catgtttata agtgcagcat acctgaaatc   600
ttgatgtttg tcaatactta tgggtgcttc aaagataaat ttatgtgatt atttttgaaa   660
gatgtgtatt aatttaaata ataccagaa aaattataac ttaaaaattg cagttttcaa   720
tatgagaatc atttatgtgt gtaaatactc aactaagaaa aatcaaaagt gtggtataat   780
attacaagaa aaaatattca aaatggaaag tccatttatg aatgtattaa tattaaaatc   840
caaagttagt tttttttata atgtctacat tataatgttt acaaaggcca taaaatcatt   900
tcagaaagtt ctcacctcc agatattgac caataaaact tcatttccta gaaaaaagaa   960
gaaatgttat aatttataca aagatgaagt aagattttgg aattacgtat acttacacct  1020

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43

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tcatttttga tttgattttt gaatggatgc ttaaaattct gatattcaac taatgactta 1080
gttttaccat caaaaaattt agattatgat ttttttgcac ctacttttc ataataaatg 1140
taatatagat acaattttatt ctgttttttg ttgatgttat tattgtttcc actgctattg 1200
aaatcgttct ttttaaccatg aatgtgcaga atcagttgat tttccatgtg acagcttctg 1260
ctaggaatct gcagtggac tggaagtatt tgcaatgaaa gaactttttt ctttaattaa 1320
aatagaatcc ccatagaatc aacaattcct cctggtcac aaacgcgagg tttttcctgt 1380
acttggtaga gcagagtgtg tgtgtgtttg tgcgttgtgt gtgtgttgtt tggtgagaat 1440
gatgagagct gagcattgtg aaaatacagg cgggggtggg gtaacagagc tgggtagggg 1500
tccagggcgc ttagattgcc ttattgtcca ggcttagatg cctcttacc agagccatca 1560
gggtgtaccct atatagtcc agcctttctg cctactcctg agaagataaa ctgggatcct 1620
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ctctccctcc agctgctgtg tgtgtgtgtg tgtgtataaa tgcacactat tttaacctaa 1920
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ttgtgaactc aaaatacctc ttgtttcttg tgaagggttt gccttttgta aacaatataa 2280
gatcactttt ggtcaaccac cctgtctgaa tttatctggg ctgctataat aaagtatcat 2340
aaactgg 2347

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<210> 51
<211> 150
<212> DNA
<213> Homo sapien

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<400> 51
cgagcggcgc cggggcaggt acatgttttt aaaaaatgac tacatgtttc acctggctct 60
atattgctat ttggaccata cttttaagtg aattgatctt acatacatgt taagtctgat 120
ttatctcccc acatttttaa acactaaatg 150

```



<210> 52  
 <211> 1748  
 <212> DNA  
 <213> Homo sapien

<400> 52  
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 cctatcttac cgatatatgg aatggagtta tagtaacttg tagcgtcttt ctctgtgac 120  
 tccaactgta tgtcagttct gagtctgttt tgggtgatta ttttctttac gtgtcatgct 180  
 tttctgcttc gttgtatgcc tggcagtcct tgactggatg ctgaatttta cttcatgggt 240  
 gttaaatatt ttcgtattgt tataaacctt aaactttcag agacgtagtt aagttactta 300  
 aacagtctga tactttcagg tcttgctttt atgatttgtt aggcagacct ggaccaatgc 360  
 ttagttgagg gctaattttt ctttttcttt ttgagacgga atctcgtctt ccctccaggc 420  
 tgaagtgcag tgggtgtgatc tcagctcact gcaacctctg cctcccgggt tcacacgagt 480  
 cttctgcctc agcctcctga gtaagctggg actacaggca cgtgccacca caccagcta 540  
 atttttgtgt ttttagtaga gacgggggtt caccatgttg gccaggatgg tctcgaacct 600  
 ctgacctcaa gtgatcagcc cacctcagct tcccaaagtg ctgggattac aggtgtgatc 660  
 cactgcacct gcccggcatt atgaatttgt gtactcttga aatggttata tttgtggatg 720  
 attttttttt ttaagctgaa acttacctca tgaataactt gattaaagta gtaggtgatt 780  
 aaaatttcaa tagaatcaaa tgagacaaaa attttaaact gactcatttg agtttcaact 840  
 ttacagtcac tgaccataaa gcacactaaa aatgtaagtt atttttaaat acatctgaaa 900  
 taaaaatact tactaaaaag gaagaagccg aagatgtata tttagaccag cacacaattt 960  
 tgatttcaat tagccttatt ctaatattta gcttttagat ctttcataca cattttcacg 1020  
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 caaagtgagt gggaaactta ctcttagatc agaaatgttt gcctctctga gtaaaatgtt 1140  
 tctttcagat gagccataga gggggcacct ttactcaac ttttctttgt ttgaaactt 1200  
 tgtttcccat actgttttca gccttttgtt tataattaga aattgtgaga agcttcattt 1260  
 agtgtttaaa aatgtgggga gataaatcag acttaacatg tatgtaagat caattcactt 1320  
 aaaagtatgg tccaaatagc aaaaatagga ccagggtgaaa catgtagtca ttttttaaaa 1380  
 acatgtactt ggtcttttgt gtgtgtctgt tttattccat tagaataaat gtgtccttga 1440  
 tgtaaatgca aagcatttct tcctgattaa attgtagatg tagactttac aatataattc 1500  
 aataataaaa agtaattaac ctctaaaaaa aaaagagaaa aaaaacaaaa aaaaacactt 1560

45

gttggggcgg cgcgggcccg gagaaaagtt tttaaaacac ttctgttggg gcggggcgcc 1620  
 cggtgttagg gccccggcac aggggtgcaa ggagaaaccg ggccggcacg gcgctggttc 1680  
 cccaaaaaaa gccgtggcac ggggctcgaa aaccgagggc cgggcacagg ctctcacggg 1740  
 ccggcgta 1748

<210> 53  
 <211> 459  
 <212> DNA  
 <213> Homo sapien

<400> 53  
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 tgagtgggtgt ttcaagttgc taagttgtgg tcattgctta cagtaatgta aactaatata 120  
 caagtgtatg tttgttttct taaagaagaa aaaaacgggg aaggaggtaa gtgttaaagg 180  
 atcaaaactc tgacaaaagg ctgggttcag aacatgacag gttgttcac tggaaactat 240  
 ttgtcatgca agtttatgtt aaaataagta gcttttgagg actttcattt ttggtcttgt 300  
 aaacatgcc a ttaataattg tccaactgat aatacttttt gcaacagaaa ctgttaaaac 360  
 ctttaaagca atattactgt agagaagaag tatgtgtatg aaacctgtga ggatactaaa 420  
 agatctacta gttctcagca taataatgac gtttgacaa 459

<210> 54  
 <211> 217  
 <212> DNA  
 <213> Homo sapien

<400> 54  
 gagacagaca tatgggcgaa tgggccctag atgctgctcg agcggcgag tgtgatggat 60  
 aaaattaaaa taaaaacaac tgaaggatat atgccaagat aaaccaaata taatacagtg 120  
 atcacagcac agttcttaaa caaaagtggc atacaatcta aaaatatctc tttttctaga 180  
 aatactatta tgtaatctag ttcaattatg gaagctt 217

<210> 55  
 <211> 2054  
 <212> DNA  
 <213> Homo sapien

<400> 55  
 tttttttttt gacaaacagg tgtatgcatt ttttcctttt taggaacaat atctaaaaaa 60  
 agaaccgccc tctgccctcc cccaaaaaag acaaagattc acacagacac atcgggatat 120  
 atgtacaacg taataaaccc catcctaaag aagcaactgg gataaccccc aggggatata 180

gaatcagaat tgtaaaaatc atagtgaagt ttgcttgctg taaagcctga gaatTTTTTT 240  
tcagttgggt cttcttgcaa ggttgggata cctgcaaaga ttgaaaaac ctaatTTTTT 300  
TTTTTTTTTT TTTTgctac agtctttaga ctaagcatgc aagacatacg actaagtgca 360  
actgagtgaa atgtTTTTTT tttaaatTTT aatcattccc taaaggTTTg aactgaggta 420  
tgcgacttaa cagtttctca tgctgttata tttactcatg tctagctaca catgctgaga 480  
atgaactaat ctaccagatt tttatcctct tttgaatacc aaactaacca gcaaccactc 540  
agtttagaag cacagggccc cttcccatg accctgtctg gctactgcct gcacatcatg 600  
aagctgcctg gaaaagTTTT TTTTTTTTTT TTTTTTTTTT TTTTTTTTTT TTTTTTaaag 660  
tcttgctgga ccacagactg cctttatac agaaagcaga gtgaagcttc aaaagtaact 720  
gccagagaag TTTTgtacc aagcttatga gtggatggga gtgttacttt tctTTaaatg 780  
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aaggatatat gccaaagataa accaaaatta atacagtgat cacagcacag ttcttaaaca 900  
aaagtggcat acaatctaaa aatatctctt tttctagaaa tactattatg taatctagtt 960  
caattatgga agcttttctg tctgactct aaactgtctc ctttattgga tactctaatt 1020  
gcagtggcat acattcattt TTTTTttgag atgggactcc cttccttctg tagctccttt 1080  
aatattgtgt cctattTTTta tctgcagtag ccccataaaa tctctTTaag agaatgagtt 1140  
ttggtctctg tagaggtaca caaaaagaaa aaggaaaaat aactactaga aaaaagtaac 1200  
aactttgggt ccattatcta cttggtcttc taaattttacg atgaaggagc agttctcttt 1260  
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caacaataag aggatatttg gcttcatcag ataaagcata aaacagagaa cataatttac 1380  
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tgggtgcaga gctgaagtgt ggaggggttc taaggactga ggttgtagctg acctgtaacc 1560  
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tctgaactaa tgtataaact cagcgccgcc gccgccacc ctaactttcag ggcagctgct 1860  
cggggaagcc ggTTTTTTTT tttggccat tttgccaaac caaaacccta cccacacccc 1920  
gttatcgcca gagcacccca ggcccctggc aacttggttc cacaaggag agccttccaa 1980

ggccatattg tccagtctaa ttaatatgag cttttttttt tttttcagtg ctgtcgctac 2040  
 cttaggaccg ttat 2054

<210> 56  
 <211> 221  
 <212> DNA  
 <213> Homo sapien

<400> 56  
 aaagaaaaag aataattgag ataggtattt acttttcgtgc acagtaataa atctagctga 60  
 gctgctacac cttgctttgc aaagatgttt acataaaata aatcatctct tatcaagtta 120  
 caatggtaat ttcttgaaat gtagatatga aagctataca cttaatccac tgaaatttcc 180  
 ttctaatttt ttaatctgta attagaccat caccataagg a 221

<210> 57  
 <211> 3055  
 <212> DNA  
 <213> Homo sapien

<400> 57  
 tctaattttt ggtaattta tagccacacc cttaaagtga aaagtgccaa cacaggccaa 60  
 ttggaatccc acaatttcca cgagcccaaa aaaaaaaaaac atgtatttta gagttcatct 120  
 ttggcaaaat ctttggttca gggtagtagt tgtttaaaag ttgattcata ttcttacctt 180  
 gtgctgagaa aggttgcat gctgcccctt atacacatgc tgcagcttga tgttaaagaa 240  
 tttttattct ttctgaagaa ctaattaatg tttaaagcaa ctgtttaata tgatggcatg 300  
 tgtgtgtgtg cgtgcgtgtg tatgttctga gtccacttct tttttcctaa ataacactac 360  
 agggattttg tcatattaga ttttaattat aatttgaaaa atcatctagt gtgtgacctt 420  
 caggcttaga aatggatatag tcaaagacat tttatccaca tttctaatag tggacttgat 480  
 taagtagata agatcagcat ctgtttatgg tagtaggaga aatagccaaa gttgaggatt 540  
 ttatgtatgt tttcctgttt acctggaaaa tagcaattaa ttggattttt tggtaaagat 600  
 tgccttctgt ataatgtttg gattatataa aattgcaaaa atgataacag cccgctttac 660  
 tgtactaagc ctgttacttt catgacgtgt gagcagaatg ccttattttg taatcttgtt 720  
 taacttggtg ctactgggac ttgatttact gtggcactag ttaagtaagt taaaaaaaag 780  
 ttaaaccctc tcattattaa agaggaaagg cgatggtgat gtctgtagta caataaaac 840  
 cataattgtg atttacctta agtaggtata actcttatgg gatatacagt atagtttttg 900  
 tgaatcttta catgatagca ttatcttttt ataatttttt ttcctaagat aaacaaatgc 960

atagttttct tctatgggtg atagaaacag ctttttgaag taatgaaaac ctcaaaagat	1020
catgttgatt ctttaattttt gccttttgca taagcctctt tataacatgt atcttttaaaa	1080
caattaagtc ttttaggaatg tgtaaccaga actatgttag tattgcttat aaaactttag	1140
ttaggttcaa tatatacata tatacatctc tatataggta tatagatttg cattttgtct	1200
tgtaaaattt tatttgaata aattcttcct gtaggtaatg ggaaacaaaa ttaatagttc	1260
atatgtcact catagcattt ctatatattga aagtagccca atataaaaact tttgattcta	1320
aaattaaacc agcagcctat tacaagcaca ttctttgatt gagtcattgg ttataaactt	1380
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**WO 02-40672**

**3/3**

Date: 23 may 2002

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 <211> 241  
 <212> DNA  
 <213> Homo sapien

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 acttgagttt gattacaaa ttgatttctg tgaattacat ttcaattctg tgcagaactt 180  
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 c 241

<210> 66  
 <211> 368  
 <212> DNA  
 <213> Homo sapien

<400> 66  
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 ctattgccac tcacttgata tgcaaacact ggctgtctag tatggaaaaa tatttttctg 240  
 gctgtagact tgagtttgat taccaaattg atttctgtga attacatttc aattctgtgc 300  
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 tctgtgac 368

<210> 67  
 <211> 745  
 <212> DNA



&lt;213&gt; Homo sapien

&lt;400&gt; 67

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ccatatattgc aaatctggga gacgaacaat ggtgtgtttt ttatgcctct tattacgaat      120
gagtttgaac atcttttcaa atatttaaga gtcacctgta gctcattttc cataaactgt      180
cagttcatat cctttgcccc cttttttatt ggcttttggt ctttttcctg ttgagttgta      240
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taaacatggg ggcatagttg cttatagaat gtctgaacca tatgcgtcat tgtagatat      360
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gcacaactat cgccgacgca acagggccac tgaataccgc cacagagcga cagcgacga      600
cttcacaccg cgaccgtacg acgcacacgg caacacaaag acgcgccgag gcaaccacat      660
acggacacgc gagaacggca gatggcgacc acgcgccaaa cccaccaaga gcacaacaca      720
cagaaccacg cacaacgcac gccca                                           745

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&lt;210&gt; 68

&lt;211&gt; 1064

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (93)..(93)

&lt;223&gt; a, c, g or t

&lt;400&gt; 68

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ctctaacttg ggtttttttt ttttaactt agtgcaattt ggaaatcttt ctacatcaaa      60
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gataaataag gcaaattatc ccccttaaa tgttgacta atttttgctc ccaccagctg      360
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ttatgcctct tattacgaat gagtttgaac atcttttcaa atatttaaga gtcacctgta      480
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<210> 69  
<211> 549  
<212> DNA  
<213> Homo sapien

<400> 69  
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acaaagcact acccatctag aaataatctt tcagttaaaa acaactctc aaaaccagca 480  
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ttaaaggta 549

<210> 70  
<211> 774  
<212> DNA  
<213> Homo sapien

<400> 70  
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taaaaacata taaattcagg tcaggctata ttaaaatata cacataccct tctttgcaaa 120  
attattaaag gttgaattaa acagatgctt taaataaaat aaagtactct tgaggacatt 180

61

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<210> 71  
<211> 881  
<212> DNA  
<213> Homo sapien

<220>  
<221> misc\_feature  
<222> (601)..(601)  
<223> a, c, g or t

<400> 71  
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62

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<210> 72

<211> 1735

<212> DNA

<213> Homo sapien

<220>

<221> misc\_feature

<222> (1024)..(1024)

<223> a, c, g or t

<400> 72

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tattcaaaat gcctttttac cagctaaaac tgtttaataa ttgctaacac ctgaaactat 240

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ggaatacaac ataggtgaag ttgtaatcct catggtatca catcaggaga tattctggtc 840

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63

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<210> 73
<211> 429
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (231)..(231)
<223> a, c, g or t

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<220>
<221> misc_feature
<222> (245)..(246)
<223> a, c, g or t

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ctgaatttgt agaactagag ttaattccct ttcttggaaa cttttccttt ntgtgtctct 240
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cgaaccatta acaacttttc ctggtgtatt cgacaacaaa aaaaacaaaa aacaaaaaaa 360
aaggctgggg gaacacaggg ccacaggggt ccccgggggg agaaactggg catacccggc 420
ctacaaaat 429

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<210> 74
<211> 563
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature

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&lt;222&gt; (49) .. (49)

&lt;223&gt; a, c, g or t

&lt;400&gt; 74

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aattgtccaa gtatatatct cgtcttcttt cttgtaactt tgattaaact gcttacttca      180
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atacaatttt ggcaggcatt ttttcctttg tttggatgaa cattttgtta ttggtccact      360
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acaaaaatth caccaacaaa agt                                         563
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&lt;210&gt; 75

&lt;211&gt; 1775

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 75

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ctccgtagct tctggattcc ccagtttctt tctagaaaca aggactccaa tagcactata      180
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<210> 76  
 <211> 511  
 <212> DNA  
 <213> Homo sapien

<400> 76  
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 acaacggcca cctttgaata tagttccaca gtttgccgc aaaaatatcc tctctttaaa 360  
 acaaaggggg gtttcttttg aattgccat atttttatct tgccaaaaaa aagctctgcg 420  
 agtatctcct tgtatatata gctgtgttcc tctgtgtgaa tttgtttttc cgtctacaca 480  
 tttccacac aatcatcaaa gaaaaggata g 511

66

<210> 77  
<211> 646  
<212> DNA  
<213> Homo sapien

<400> 77  
gggattacag gcatgagcca ctgcaccgg ccactttttt tttttaaga aaaatgctct 60  
gcatggattg gagacacagc aataactact gttgccatgg aagggttaac agtgtaggag 120  
ctggtttatc agtccgcttt gacatacagc taaaggaaat ttatgtttgg gggaaaaagg 180  
ccctctgttc actttaaaat tcagtgtgga cttatgccaa agggggctgt ttaagttgaa 240  
agaagccaag ttaagtttgg cctcttgctt ggaatcactt gaattctgaa atttcactgc 300  
gacggacatg tgccttgtea cttttccat tgcttaatcc tgaagttggg tgcaagtctc 360  
tctgcaccta ttaaaaagtg atgtatatac ttccttctta ttctgttgag ttgtatagaa 420  
tgggtctttg tatttaacac ttgttaattt tcacaatatt ttttaattta aataaataaa 480  
cacttttttc cctcctgca aaaaaaaaaa aaggctgggc gtatcgtggc aaagctgtgc 540  
ctgggtgaat gggttccgct ccatcccatc tcgcagcaaa aaaatgtgtc gaaaccgaag 600  
acaaacaaac ggggagagac aaaaagacag aaagacaaat aactaa 646

<210> 78  
<211> 493  
<212> DNA  
<213> Homo sapien

<220>  
<221> misc\_feature  
<222> (264)..(264)  
<223> a, c, g or t

<220>  
<221> misc\_feature  
<222> (250)..(250)  
<223> a, c, g or t

<220>  
<221> misc\_feature  
<222> (308)..(308)  
<223> a, c, g or t

<220>  
<221> misc\_feature  
<222> (311)..(312)  
<223> a, c, g or t

<400> 78



67

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ggtgatagtc atatagggcg atgggcctct agatgctgct cgagcggcgc caggtgatgg      60
atcgaggtac tgaataggaa agggaagttt tattggaacc ttctaagagg aaatcaacca      120
ggaccaaaga gccttaaagg acacacagca atgcacggca cttcccttcc ccagctggct      180
gccctaggtg atttctcaag ctcttgggg gactgtgttt ctcatctgga atcaatgtgt      240
gtatgagttt tgtctggtag gatngctgac tctgtccaac agatatcact gtggaattga      300
ataaatnngt mngaaagaac caaaaaaaaa aaaaaaaaaa caaacaaaaa ggcgggggggt      360
aatcctgggg cctaaggcgg gttcccgggg gtggaattgg gtttccccgg ccccaacaatt      420
cccccaacaa ctttcacggg aagcaagttg caacaaaagg caaaagaaaa aagaagaaaa      480
ggaaagagaa aca                                          493

```

<210> 79  
 <211> 704  
 <212> DNA  
 <213> Homo sapien

```

<400> 79
cacttaggag ttattagtc taaaaagggg accgtgcaag gcagcagagt tacatggttc      60
ttcaaatcat gtctgaacct attcttgga tcttctctat aataaggga gttctcttac      120
cccactgcca catacctctg ttttaaaaga taagtccact aactgtgagt aaaaatgata      180
tatataggca ttaaccacac actttaatgg gtataatttc ctggctgcct cccttctca      240
gccattagg ttaaacacca aagaagact ggtgtgtact gaataggaaa gggaagtttt      300
atgtggaacc ttctaagagg aaatcaacca ggaccaaaga gccttaaagg acacacagca      360
atgcacagcc acttcccttc ccagcttgg ctgccctagg tgatttctca agctccttgg      420
gggactgttg tttctcatct ggaatcaatg tgtgtatgag ttttgtctgg taggattgct      480
gactctgtcc aacagatatc actgtgaatt gaataaattt gttgaaagag aaaaaaaaaa      540
aaaaaaaaaa aaaaaaaaaa aggcgggggg taatcctggg gcctaaggcg gggtcccggg      600
ggtggaattg gggttccccg gccccacaat tcccccaaca actttcacgg gaagcaagtt      660
gcaacaaaag gcaaaagaaa aaagaagaaa aggaaagaga aaca                                          704

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<210> 80  
 <211> 455  
 <212> DNA  
 <213> Homo sapien

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<400> 80
gatcgatata taggcgactc ggtcctctaa tgctgctcga gcggcgagc tgtgatggat      60
gcgcccgggc aggtcggcga gggaggaaga agcgcggaga gccgttaagt ccatgccggt      120

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gtggtggcgg cggcggagac tgcgggccgt agctgggttc tgcgagcata taggttgctg 180  
tagataatgt tcttagctgt caatgtttaa aaatacttct gcttcgttac ctcaagtgtg 240  
gcatgcagca ttttgaagg aaaattgaag acgtgttcaa gaaaacatga acagaagcaa 300  
atgatgaaaa tgagcathtt acttgatgtt gatacatcac aataaattat ggagaaaaaa 360  
aaaaaaaaa aaaaaaagc tttggggtta ccttggccaa actttttccc tgtgtgaatt 420  
ttttttccgc tcaaattccc caaaaaattt gaaca 455

<210> 81  
<211> 1756  
<212> DNA  
<213> Homo sapien

<400> 81  
atggctgatt tcaggcctgg gatagaaaat atagcagatg gacttggggg atggtctaac 60  
aatggcctg tgtcaaaagg acataggagc aaccttgaag ggacccccag tgacaaaaga 120  
tgtaagcagg agggggccat aaatcagggc ctggagttcg gtggcatcaa aagagttaga 180  
gctaagtctg ggtgtcactg cgtaaagcgg aggccctggg gaggggacgc gttttcacgg 240  
aggcatatta agtcgggaaa agacatagaa gcctgtggaa aagcgttaaa gccggtgcac 300  
tcagcccccc ttcgcacccg cggagggggc gggccgcgta ccggaagagg cggggccacc 360  
ggagtgccta agagctgtct tccgatgtcg ctcttctttt cccgcgcgac cggtcgaggg 420  
aggaagaagc gcgaagagcc gttagtcatg ccggtgtggt ggcggcggcg gagactgcgg 480  
gcccgtagct gggctctgcg agcatatagg ttgctgtaga tgaatgttct tagctgtcat 540  
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ttgaagcgt gttcaagaaa acatgaacag aagcaaatga tgaaaatgag cattttactt 660  
gatgttgata acatcacaat aaattatgga gaaaaatata tatttggcta acttttaatt 720  
gctgaacaat aaagtgtttt cttttaaaaa aataacaaca gaacaaaaaa actcccagg 780  
aataagtctc ctctctctct cttccctccc ttttaaaaca ttggcgcata gaaaggcata 840  
tgcagggact tataagggtg gaaaagacct cctcttttagt gaatgtttgt gggtgcccac 900  
gtgaatagaa gtgtgtttcc cacggtgtgc aacaaaactc tagtgggcta catagggggg 960  
gaccttgaa tgacactgt aaagacctgg ggggtcaatg aaacgctttt ggtggcacac 1020  
ggccatgtag ggccactatc tcacagaggt tgagcgcacg aaatgcgtgg gataccacat 1080  
ctaacgcgat ctaccaagt gggtgccgtt gtgggaacac cggtttgtaa agcaacagag 1140  
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acgcctataa aaggctgtaa gaacggcccc tataaggaga ggacacggcc agtcagaacc 1260
caaaacacgg ggggggctcc tttaggacag gctgcgagac gaccacacac cacaagggtg 1320
tgggcgaccc tcaaacggga aagggtagaa cccccagggg agggtcctcc ccaggccccc 1380
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gcctcggcaa aagagaaaca cgtgtggcgg tcatagaacg agcccagtcg ccgacaaatt 1500
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tcacccaaaa gagtagggct gccaggtggg gccaaagtcac tgcagaaagg gaccggggga 1680
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```

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<210> 82
<211> 71
<212> PRT
<213> Homo sapien

```

```

<400> 82

```

```

Met Phe Asn Thr Ala Asn Gly Trp Leu Leu Val Asp Asp Ile Ile Ser
1           5           10           15

```

```

His His Gln Met Trp Val Trp Trp Gly Arg Gln Leu His Asp Gly Asp
          20           25           30

```

```

Lys Gln Ile Ala Ala Gly Gly Gly Arg Pro Ile Leu Tyr Leu Phe Glu
          35           40           45

```

```

Arg Arg Ala Cys Val Val Leu Cys Gly Asn Tyr Leu Arg Leu Leu Ala
          50           55           60

```

```

Cys Ser Pro Asn Asn Asn Ile
65           70

```

```

<210> 83
<211> 16
<212> PRT
<213> Homo sapien

```

```

<400> 83

```

```

Met Ala Phe Cys Thr Gly Lys Leu Thr Leu Lys Gln Thr Leu Ser Ser
1           5           10           15

```

70

<210> 84  
 <211> 47  
 <212> PRT  
 <213> Homo sapien

<400> 84

Met Leu Gly Cys Phe Val Arg Ile Ile Val Val Val Ser Ser Leu Ser  
 1 5 10 15

Val Leu Arg Cys Gly Leu Gly Trp Val Glu Tyr Leu Gly Gly Arg Ile  
 20 25 30

Val Arg Ala Gly Ile Thr Asn Phe His Asn Gln Gly Glu His Gly  
 35 40 45

<210> 85  
 <211> 181  
 <212> PRT  
 <213> Homo sapien

<400> 85

Met Val Val Asp Pro Pro Arg Gly Gly Ser Leu Ser Phe Ser Gln Leu  
 1 5 10 15

Ser Gln Pro Thr Trp Phe Ser Ser Pro Leu Pro Ser Trp Gly Val Pro  
 20 25 30

Arg Ala Pro Gln Ser Val Cys Ser Arg Cys Val Val Gly Lys Cys Val  
 35 40 45

Ser Leu Pro Pro His Arg Pro Ser Ser His Pro His Lys His Met Gln  
 50 55 60

Gln Arg Gln Glu His Lys Leu Val Pro Thr Gly Arg Pro Gly Arg Asn  
 65 70 75 80

Gly Arg Cys Glu Ala Arg Arg Asn His Met Gln Gly Thr Ala Ser Gln  
 85 90 95

Ser Pro Thr Arg Ile Ala Ala Ser Asp Arg Thr Asp Glu Gln Arg Ile  
 100 105 110

Ala Pro Pro His His Pro Pro Gly Pro Gln Gly Glu Ile Asn Thr Cys  
 115 120 125

71

Gly Arg Ala Ala Ser Lys Gly Pro Thr Thr Lys Leu Gly Ala Glu Ser  
 130 135 140

Gly Arg Thr Met Thr His Thr Glu Arg Arg Arg Pro Lys Gln His Leu  
 145 150 155 160

Ala Thr Asn Ala Gln Arg Pro Arg Leu His Arg His Pro Thr Cys Ile  
 165 170 175

Arg Arg Met Ser Asp  
 180

<210> 86  
 <211> 209  
 <212> PRT  
 <213> Homo sapien

<400> 86

Met Pro Ser Val Cys Ser Ala Cys Leu Val Gly Ser Cys Arg Ser Gly  
 1 5 10 15

Pro Ser Ala Leu Phe Leu Ser Ser Leu Leu Val Leu Val Cys Ser Phe  
 20 25 30

Ser Cys Ser Pro Tyr Ser Ala Ala Arg Ala Arg Ala Ala Val Leu Arg  
 35 40 45

Leu Ser Leu Arg Leu Val Arg Leu Pro Ala Ala Val Cys Cys Val Leu  
 50 55 60

Phe Phe Arg Phe Ser Leu Leu Phe His Ser Leu Cys Trp Leu Leu Val  
 65 70 75 80

Ser His Pro Gly Leu Val Ser Ala His Gly Val Ala Cys Ala Phe Leu  
 85 90 95

Leu Phe Pro Ala Val Gly Leu Ser Ser Leu Thr Leu Leu Leu Leu Phe  
 100 105 110

Ala Val Ala Phe Arg Cys Ser Cys Ser Val Ser Ser Leu Ser Leu His  
 115 120 125

Phe Trp Trp Ser Leu Leu Leu Leu Ser Gly Pro Ser Ser Val Phe Cys  
 130 135 140

72

Phe Gly Leu Phe Ser Val Val Val Ala Leu Leu Ile Val Gly Cys Val  
 145 150 155 160

Leu Arg Leu Ser Leu Trp Leu Ala Leu Leu Val Arg Trp Gly Thr Phe  
 165 170 175

Trp Gly Arg Gly Ile Pro Thr Phe Pro His Pro Gly Tyr Thr Leu Gly  
 180 185 190

Pro Val Phe Pro His Ala Phe Phe Phe Phe Phe Phe Phe Phe Asn  
 195 200 205

Cys

<210> 87  
 <211> 29  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 87

Met Arg Lys Trp Lys Ser Tyr Leu Gly Val Ile Thr Pro Asn Val Lys  
 1 5 10 15

Pro Glu Arg Gln Arg Tyr Thr His Leu Glu Gly Glu Glu  
 20 25

<210> 88  
 <211> 78  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 88

Met Arg Val Ser Ala Val Val Cys Glu Lys Met Trp Cys Leu Pro Pro  
 1 5 10 15

Arg Ala Thr Asn Ile Ser His Thr Gln Ile Tyr Arg Ala Gln Thr Asn  
 20 25 30

Asn Gly Arg Arg Arg Ser Ser Arg Arg Thr Arg Ser Arg Ala Gly Glu  
 35 40 45

Glu Lys Pro Gly Gln Thr Gly Asp Thr Gly Ser Asn Arg Arg Gly Val  
 50 55 60

Arg Asp Arg Lys Lys Asp Gly Thr Arg Ala Thr Lys Ser Ala

73

65

70

75

<210> 89  
<211> 61  
<212> PRT  
<213> Homo sapien

&lt;400&gt; 89

Met Pro Val Ile Leu Ala Leu Trp Glu Ala Lys Ala Asp Gly Ser Leu  
1 5 10 15

Glu Pro Arg Ser Leu Arg Pro Ala Trp Ala Thr Trp Gln Asn Pro Ile  
20 25 30

Ser Thr Lys Asn Thr Lys Ser Arg Pro Gly Thr Val Val His Thr Cys  
35 40 45

Asn Pro Gly Ile Leu Gly Gly Arg Asp Arg Trp Ile Thr  
50 55 60

<210> 90  
<211> 42  
<212> PRT  
<213> Homo sapien

&lt;400&gt; 90

Met Gly Ser Cys Ser Val Ala Gln Val Gly Val Met Trp His Asp Leu  
1 5 10 15

Gly Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Gln Phe Ser Cys Pro  
20 25 30

Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg  
35 40

<210> 91  
<211> 52  
<212> PRT  
<213> Homo sapien

&lt;400&gt; 91

Met Leu Pro Ser Ser Gly Val Tyr Ile Ser Ala Leu Leu Leu Tyr Ile  
1 5 10 15

Glu Leu Cys Thr Thr Asn Ile His Ser His Cys Val Asn Asn Pro Asn  
20 25 30

Ile Thr Lys Gly Phe Arg Pro Gly Gly Glu Trp Ala Phe Phe Arg Ser  
 35 40 45

Pro Thr Asn Cys  
 50

<210> 92  
 <211> 143  
 <212> PRT  
 <213> Homo sapien

<400> 92

Met Pro Leu Leu Pro Gly Ser Leu Ala Ser Phe Phe Ser Leu Thr Cys  
 1 5 10 15

Val Asp Leu Ser Leu Arg Leu Ser Ser Ser Leu Cys Pro Leu Ser Leu  
 20 25 30

Pro Pro Cys Pro Pro Pro Ile Pro Val Pro Leu Ala Arg Pro Ser Leu  
 35 40 45

Phe Phe Ala Ala Phe Ser Pro Leu Ser Ser Leu Ala Phe Arg Ser Pro  
 50 55 60

Leu Ser Ser His Tyr Val Leu Leu Pro Asp Asp Arg Phe Arg Asp Val  
 65 70 75 80

Pro Ala Val Pro Arg Thr Ser Thr Pro Pro Phe Ser Thr Ala Ser Arg  
 85 90 95

Leu Leu Arg Leu His Pro Thr Ser Lys Leu Arg Pro Tyr His Pro Pro  
 100 105 110

Asn Thr Ala Pro Cys Cys Asn Thr Pro Ser His Leu Pro Ala His Ala  
 115 120 125

Pro Val Pro Pro Ser Arg His Leu Pro Leu Ser Pro Leu Ala Ser  
 130 135 140

<210> 93  
 <211> 83  
 <212> PRT  
 <213> Homo sapien

<400> 93



75

Met Lys Trp Gly Pro Lys Lys Arg Gly Ile Gln Glu Thr Ser Ser His  
 1 5 10 15

Thr Glu Arg Ser Pro Phe His Arg Arg Gly Gly Pro Val Gly Pro Pro  
 20 25 30

Val Ala Gly Ala Val Val Ser Leu Asn Asn Thr His Pro Ser Arg Thr  
 35 40 45

Asn Arg Leu Leu Ser Ile Ile Phe Pro Arg Pro Pro Pro Pro Arg Gly  
 50 55 60

Pro Leu Pro Pro Phe Gly Ala Pro Pro Pro Gln Ile Lys Lys Pro Ile  
 65 70 75 80

Pro Phe Phe

<210> 94  
 <211> 73  
 <212> PRT  
 <213> Homo sapien

<400> 94

Met Glu Leu Arg Pro Ser Leu Ser Gly Ile Lys Lys Ala Lys Val Pro  
 1 5 10 15

Pro Thr Pro Pro Pro Pro Tyr Glu Asn His Gln Ser His His Leu Gly  
 20 25 30

Gly Asp Pro Lys His Leu Gly Pro Ile Leu Gln Val Lys Thr Ile Arg  
 35 40 45

Arg Asn Val Trp Asp Thr Gln Asn Glu Ile Ala Asn Gly Arg Arg Asp  
 50 55 60

Ala Pro Cys Gln Leu Cys Phe Ser Asp  
 65 70

<210> 95  
 <211> 37  
 <212> PRT  
 <213> Homo sapien

<400> 95

Met Ser Pro Leu Arg Tyr Leu Thr Arg Phe Gln Phe Ser Gly Gly Pro

76

1                      5                      10                      15  
 Val Arg Lys Gly Lys Gly Glu Lys Ser Asn Ile Asn Ser Val Leu Ala  
                     20                      25                      30  
 Gly Glu Leu Pro Ile  
                     35  
 <210> 96  
 <211> 151  
 <212> PRT  
 <213> Homo sapien  
 <400> 96  
 Met Phe Ser Cys Leu Gly Asn Gly Pro Arg Gly Phe Ala Pro Cys Ile  
 1                      5                      10                      15  
 Trp Glu Gly Pro Leu Gly Cys Ser Leu Arg Ser Asp Ser Ala Trp Arg  
                     20                      25                      30  
 Leu Val Pro Arg Ser Ser Gly Pro Leu Val Cys Val Phe Phe Val Arg  
                     35                      40                      45  
 Ser Asn Gly Val Gln Thr Val Val Pro Val Gly Ile Arg Ala Ser Ile  
                     50                      55                      60  
 Ala Val Gly Val Ser Val Ala Leu Tyr Trp Arg Trp Leu Phe Ser Ala  
 65                      70                      75                      80  
 Ser Val Leu Glu Cys Val Ile Leu Ala His Val Val Tyr Leu Leu Cys  
                     85                      90                      95  
 Pro Pro Leu Asp Arg Ser Leu Phe Cys Phe Glu Arg Met Ser Trp Thr  
                     100                      105                      110  
 Ser Leu Cys Phe Leu Val Arg Ala His Ser Asp Val Val Arg Leu Leu  
                     115                      120                      125  
 Leu Cys Phe Trp Met Gly Leu Leu Phe Trp Phe Val Gly Leu Met His  
                     130                      135                      140  
 Cys Gly Ile Cys Asn Gly Ser  
 145                      150

&lt;210&gt; 97

77

<211> 60  
 <212> PRT  
 <213> Homo sapien

<400> 97

Met Ile Thr Thr Arg Glu His Ala Ser Glu Pro Leu Cys Asn Arg Pro  
 1 5 10 15

Arg Phe Thr Gly Ser Tyr Leu Gly Glu Ser Gly Leu Ser Arg Gly Ala  
 20 25 30

Leu Leu Val Val Thr Pro Gln Val Thr Met Leu Glu Leu Trp Ser Pro  
 35 40 45

His Tyr Ile Trp Cys Ser Ile Lys Tyr Gly Gly Leu  
 50 55 60

<210> 98  
 <211> 59  
 <212> PRT  
 <213> Homo sapien

<400> 98

Met Trp Arg Arg Gly Ser Arg Ile Glu Arg Ile Asn Thr Ala Met Ile  
 1 5 10 15

Arg Leu Ile Thr Arg Val Cys Leu Ser Asp Phe Met Leu Phe Ala Cys  
 20 25 30

Leu Val Thr Tyr Gln Phe Arg Arg Asn Gly Met Thr His Ala Leu Leu  
 35 40 45

Ser Ser His His Ser Ile Arg Leu Thr His Ala  
 50 55

<210> 99  
 <211> 133  
 <212> PRT  
 <213> Homo sapien

<400> 99

Met Cys Asp Trp Glu Asn Ala Ser Gly Arg Ser Lys Cys Asp Arg Pro  
 1 5 10 15

Thr Ser Leu Arg Gln Leu Pro Ala Arg Arg Arg Ile Leu Ala Arg Thr  
 20 25 30

Val Pro Pro Gly Thr Met Ser His His Ala Phe Pro Thr Pro Leu Pro  
 35 40 45

His Phe His His His Ala His Arg Ala Ala Thr Gly Asp His Thr Trp  
 50 55 60

Arg Thr Trp Pro Tyr Phe Phe Cys Ile Glu Trp Glu Gln Arg Leu Leu  
 65 70 75 80

Leu Ser Pro Leu Gln Asp Phe Leu Arg Ala Ala Phe Asp Cys Ser Ser  
 85 90 95

Phe Val Arg Cys Gly Val His Gln Pro Thr Ala Val Arg Gln Met Ser  
 100 105 110

Arg Ala Pro Gly His Gly Thr Arg Arg Pro Pro Cys Ala Arg Val Pro  
 115 120 125

Arg Pro Arg Pro Arg  
 130

<210> 100  
 <211> 22  
 <212> PRT  
 <213> Homo sapien

<400> 100

Met Gln Asp Gln Ala Arg Thr Asn Lys Glu Gln Gln Thr Arg Thr Lys  
 1 5 10 15

Arg Ser Glu Gln Ala Ser  
 20

<210> 101  
 <211> 52  
 <212> PRT  
 <213> Homo sapien

<400> 101

Met Phe Tyr Ile Lys Ser Met Leu Leu Leu Asp Glu Lys Asn Leu Lys  
 1 5 10 15

Lys Gln Lys Lys Lys Lys Lys Lys Lys Arg Leu Gly Glu Leu Gly  
 20 25 30

79

Lys Gly Ala Pro Gly Gly Ile Gly Tyr Arg Ser Lys Ser Thr Lys Asn  
                   35                                  40                                  45

Arg Arg Lys Val  
           50

<210> 102  
 <211> 80  
 <212> PRT  
 <213> Homo sapien

<400> 102

Met Phe Cys Gly Gly Val Cys Leu Ala Thr Pro Ser Arg Leu Trp Ile  
   1                                  5                                  10                                  15

Leu Pro Pro Thr Ser Ser Pro Ser Leu Leu Ser His Leu Gly Gly Gly  
                   20                                  25                                  30

Asp Ser Leu Ser Leu Val Trp Cys Val Met Pro Arg Leu Phe Cys Leu  
                   35                                  40                                  45

Ala Val His Thr Asp Ile Leu Arg Arg Arg Cys Phe Tyr Gly Gly Gly  
   50                                  55                                  60

Arg Pro Thr Val Leu Leu Thr Pro Pro Leu Met Tyr Pro Ala Ala Asp  
   65                                  70                                  75                                  80

<210> 103  
 <211> 120  
 <212> PRT  
 <213> Homo sapien

<400> 103

Met Leu His Gln Phe Phe Val Ser Ala Lys Ile Phe Phe Val Trp Arg  
   1                                  5                                  10                                  15

Ile Leu Cys Gly Arg Gly Gly Tyr Thr His Phe Phe His Thr His Gly  
                   20                                  25                                  30

Gly Arg Thr His Ser Phe Cys Val Pro Ser Glu Val Tyr Arg Pro Pro  
                   35                                  40                                  45

Arg Thr Phe Leu Phe Val Arg Tyr Thr Arg Glu Ile Leu Tyr Val Cys  
   50                                  55                                  60

Ser Leu Phe Ser His His Gly Ala Pro Gln Gly Glu Thr His Ser Trp

80

65

70

75

80

Cys Leu His Ser Val Ser Ala Leu Ser Ser Cys Ser Arg Glu Lys Ser  
85 90 95

Arg Arg His Pro Thr Thr Arg Glu Trp Trp Leu His Ala Ile Glu Cys  
100 105 110

Val Phe Gln Ser Glu Ile Phe Leu  
115 120

<210> 104  
<211> 28  
<212> PRT  
<213> Homo sapien

<400> 104

Met Arg Glu Ala Glu Ser Gly Phe Lys Gln Ile Gly Val Arg Gln Ala  
1 5 10 15

Thr Leu Tyr Phe Ser Val Leu Ala Tyr Gln Cys Cys  
20 25

<210> 105  
<211> 150  
<212> PRT  
<213> Homo sapien

<400> 105

Met Ser Gly Glu Leu Ser Asn Arg Phe Gln Gly Gly Lys Ala Phe Gly  
1 5 10 15

Leu Leu Lys Ala Arg Gln Glu Arg Arg Leu Ala Glu Ile Asn Arg Glu  
20 25 30

Phe Leu Cys Asp Gln Lys Tyr Ser Asp Glu Glu Asn Leu Pro Glu Lys  
35 40 45

Leu Thr Ala Phe Lys Glu Lys Tyr Met Glu Phe Asp Leu Asn Asn Glu  
50 55 60

Gly Glu Ile Asp Leu Met Ser Leu Lys Arg Met Met Glu Lys Leu Gly  
65 70 75 80

Val Pro Lys Thr His Leu Glu Met Lys Lys Met Ile Ser Glu Val Thr  
85 90 95

Gly Gly Val Ser Asp Thr Ile Ser Tyr Arg Asp Phe Val Asn Met Met  
 100 105 110

Leu Gly Lys Arg Ser Ala Val Leu Lys Leu Val Met Met Phe Glu Gly  
 115 120 125

Lys Ala Asn Glu Ser Ser Pro Lys Pro Val Gly Pro Pro Pro Glu Arg  
 130 135 140

Asp Ile Ala Ser Leu Pro  
 145 150

<210> 106  
 <211> 61  
 <212> PRT  
 <213> Homo sapien

<400> 106

Met Ser Lys Ser Leu Ile Ser Gln Lys Arg Leu Lys Ile Tyr Cys Asp  
 1 5 10 15

Ser Met Thr Ser Tyr Pro Lys Asp Lys Asn Val His Lys Ile Ser His  
 20 25 30

Ser Leu Asn Ile Cys Cys Tyr Phe His Ser Lys Met Ile Lys Ile Asn  
 35 40 45

Phe Ile Leu Pro Pro Val Gln Lys Tyr Leu Lys His Lys  
 50 55 60

<210> 107  
 <211> 32  
 <212> PRT  
 <213> Homo sapien

<400> 107

Met Gly Ser Asp Trp Gln Lys Leu Ile Ser Ser Gln Trp Glu Pro Thr  
 1 5 10 15

Glu Leu Ser Arg Val Pro Arg Lys Lys Thr Gly Ala Ile Ser Gln Ser  
 20 25 30

<210> 108  
 <211> 638  
 <212> PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 108

Met Pro Leu Pro Leu Leu Pro Met Asp Leu Lys Gly Glu Pro Gly Pro  
 1 5 10 15

Pro Gly Lys Pro Gly Pro Arg Gly Pro Pro Gly Pro Pro Gly Phe Pro  
 20 25 30

Gly Lys Pro Gly Met Gly Lys Pro Gly Leu His Gly Gln Pro Gly Pro  
 35 40 45

Ala Gly Pro Pro Gly Phe Ser Arg Met Gly Lys Ala Gly Pro Pro Gly  
 50 55 60

Leu Pro Gly Lys Val Gly Pro Pro Gly Gln Pro Gly Leu Arg Gly Glu  
 65 70 75 80

Pro Gly Ile Arg Gly Asp Gln Gly Leu Arg Gly Pro Pro Gly Pro Pro  
 85 90 95

Gly Leu Pro Gly Pro Ser Gly Ile Thr Ile Pro Gly Lys Pro Gly Ala  
 100 105 110

Gln Gly Val Pro Gly Pro Pro Gly Phe Gln Gly Glu Pro Gly Pro Gln  
 115 120 125

Gly Glu Pro Gly Pro Pro Gly Asp Arg Gly Leu Lys Gly Asp Asn Gly  
 130 135 140

Val Gly Gln Pro Gly Leu Pro Gly Ala Pro Gly Gln Gly Gly Ala Pro  
 145 150 155 160

Gly Pro Pro Gly Leu Pro Gly Pro Ala Gly Leu Gly Lys Pro Gly Leu  
 165 170 175

Asp Gly Leu Pro Gly Ala Pro Gly Asp Lys Gly Glu Ser Gly Pro Pro  
 180 185 190

Gly Val Pro Gly Pro Arg Gly Glu Pro Gly Ala Val Gly Pro Lys Gly  
 195 200 205

Pro Pro Gly Val Asp Gly Val Gly Val Pro Gly Ala Ala Gly Leu Pro  
 210 215 220



Gly Pro Gln Gly Pro Ser Gly Ala Lys Gly Glu Pro Gly Thr Arg Gly  
225 230 235 240

Pro Pro Gly Leu Ile Gly Pro Thr Gly Tyr Gly Met Pro Gly Leu Pro  
245 250 255

Gly Pro Lys Gly Asp Arg Gly Pro Ala Gly Val Pro Gly Leu Leu Gly  
260 265 270

Asp Arg Gly Glu Pro Gly Glu Asp Gly Asp Pro Gly Glu Gln Gly Pro  
275 280 285

Gln Gly Leu Gly Gly Pro Pro Gly Leu Pro Gly Ser Ala Gly Leu Pro  
290 295 300

Gly Arg Arg Gly Pro Pro Gly Pro Lys Gly Glu Ala Gly Pro Gly Gly  
305 310 315 320

Pro Pro Gly Val Pro Gly Ile Arg Gly Asp Gln Gly Pro Ser Gly Leu  
325 330 335

Ala Gly Lys Pro Gly Val Pro Gly Glu Arg Gly Leu Pro Gly Ala His  
340 345 350

Gly Pro Pro Gly Pro Thr Gly Pro Lys Gly Glu Pro Gly Phe Thr Gly  
355 360 365

Arg Pro Gly Gly Pro Gly Val Ala Gly Ala Leu Gly Gln Lys Gly Asp  
370 375 380

Leu Gly Leu Pro Gly Gln Pro Gly Leu Arg Gly Pro Ser Gly Ile Pro  
385 390 395 400

Gly Leu Gln Gly Pro Ala Gly Pro Ile Gly Pro Gln Gly Leu Pro Gly  
405 410 415

Leu Lys Gly Glu Pro Gly Leu Pro Gly Pro Pro Gly Glu Gly Arg Ala  
420 425 430

Gly Glu Pro Gly Thr Ala Gly Pro Thr Gly Pro Pro Gly Val Pro Gly  
435 440 445

Ser Pro Gly Ile Thr Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Pro  
450 455 460

Pro Gly Ala Pro Gly Ala Phe Asp Glu Thr Gly Ile Ala Gly Leu His  
465 470 475 480

Leu Pro Asn Gly Gly Val Glu Gly Ala Val Leu Gly Lys Gly Gly Lys  
485 490 495

Pro Gln Phe Gly Leu Gly Glu Leu Ser Ala His Ala Thr Pro Ala Phe  
500 505 510

Thr Ala Val Leu Thr Ser Pro Phe Pro Ala Ser Gly Met Pro Val Lys  
515 520 525

Phe Asp Arg Thr Leu Tyr Asn Gly His Ser Gly Tyr Asn Pro Ala Thr  
530 535 540

Gly Ile Phe Thr Cys Pro Val Gly Gly Val Tyr Tyr Phe Ala Tyr His  
545 550 555 560

Val His Val Lys Gly Thr Asn Val Trp Val Ala Leu Tyr Lys Asn Asn  
565 570 575

Val Pro Ala Thr Tyr Thr Tyr Asp Glu Tyr Lys Lys Gly Tyr Leu Asp  
580 585 590

Gln Ala Ser Gly Gly Ala Val Leu Gln Leu Arg Pro Asn Asp Gln Val  
595 600 605

Trp Val Gln Met Pro Ser Asp Gln Ala Asn Gly Leu Tyr Ser Thr Glu  
610 615 620

Tyr Ile His Ser Ser Phe Ser Gly Phe Leu Leu Cys Pro Thr  
625 630 635

<210> 109  
<211> 78  
<212> PRT  
<213> Homo sapien

<400> 109

Met Thr Ser Leu Leu Ser Leu Ile Pro Asn Met Gln Val Phe Asn Cys  
1 5 10 15

Leu Met Arg Val Glu Trp Ser Tyr Val Ser Leu Leu Phe Gly Leu Thr  
20 25 30

Leu Thr Leu Val Leu Arg Leu Ile Leu Tyr Asp Val Glu Lys Ser Ser  
50 55 60

Asn Phe Ser Glu Leu Phe Leu Ile Ser Asn Thr Val Ile Thr  
65                      70                      75

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<210> 110
<211> 19
<212> PRT
<213> Homo sapien
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<400> 110

Met Gly Arg Glu Arg Met Leu Ile Phe Lys Phe Leu Ser Leu Val Lys  
1 5 10 15

Phe Cys Ile

```
<210> 111
<211> 36
<212> PRT
<213> Homo sapien
```

<400> 111

Met Thr Lys Ser His Lys Lys Ser Thr Arg Ser Pro Leu Cys Ala Trp  
1 5 10 15

Leu Leu Phe Lys Lys Lys Lys Asn Pro Val Tyr Leu Trp Thr His Ser  
20 25 30

Met Arg Thr Met  
35

```
<210> 112
<211> 36
<212> PRT
<213> Homo sapien
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<400> 112

Met Gln Met Pro Asn Asn Pro Cys Met Ala Asn Met Phe Thr Leu Ser  
1 5 10 15

86

Leu Met Asn Thr Met Arg Thr Val Ser Cys Thr Val His Arg His Ser  
                   20                  25                  30

Pro Ser His Asp  
                   35

<210> 113  
 <211> 66  
 <212> PRT  
 <213> Homo sapien

<400> 113

Met Trp Val Thr Met Gln Met Phe Met Asn Asn Phe Thr Glu Val Ile  
 1                  5                  10                  15

Pro Ser Val Phe Cys Ser Asn Thr Trp Arg Met Thr Phe Ile Phe Ile  
                   20                  25                  30

Tyr Phe Ile Ser Leu Phe Gln Leu Ser Ser Asp Asn Ser Gly Asn Val  
                   35                  40                  45

Ser Phe Phe Phe Phe Phe Thr Lys Thr Phe Tyr Cys Val Thr Cys Cys  
                   50                  55                  60

Ile Met  
 65

<210> 114  
 <211> 101  
 <212> PRT  
 <213> Homo sapien

<400> 114

Leu Phe Tyr Leu Arg Arg Gly Phe Ala Leu Ser Pro Ser Leu Asp Phe  
 1                  5                  10                  15

Ser Gly Thr Ile Leu Ala Tyr Cys Asn Leu His Leu Leu Gly Ala Asn  
                   20                  25                  30

Asn Pro Pro Thr Ser Val Ser Ala Val Ala Gly Thr Thr Gly Thr Cys  
                   35                  40                  45

His His Ala Gln Leu Ile Phe Ile Phe Leu Leu Glu Thr Glu Phe His  
                   50                  55                  60

Tyr Val Ala Gln Val Gly Leu Lys Ile Pro Ser Ser Ser Asp Val Pro

87

65

70

75

80

Thr Leu Ala Ser Gln Ser Ala Arg Thr Thr Gly Met Ser His Cys Ala  
                     85                    90                    95

Gln Pro Ser Phe Phe  
                     100

<210> 115  
 <211> 48  
 <212> PRT  
 <213> Homo sapien

<400> 115

Met Asn His Leu Ile Ile Lys Tyr Leu Ala Asp Phe Gly Arg Gly Leu  
   1                    5                    10                    15

Val Val Asp Asp Leu Thr Ser Ile Asn His Leu Ala Ala Pro Arg Ile  
                     20                    25                    30

His His Thr Ala Pro Leu Glu His Asp Leu Glu Ala His Ser Pro Ile  
                     35                    40                    45

<210> 116  
 <211> 53  
 <212> PRT  
 <213> Homo sapien

<400> 116

Met Asn Thr Ser Ser Arg Leu Val Ser Ile Ser Lys Arg Thr Ser Arg  
   1                    5                    10                    15

Asn Ala Ser Ala Ala Val Cys Ala Trp Glu Ser Gln Arg Gly Asn Leu  
                     20                    25                    30

Pro Ser Pro Pro Ser Arg Ala Gly Gly Glu Gln Glu Asp Thr Leu Pro  
                     35                    40                    45

His Leu Gly Arg Asp  
                     50

<210> 117  
 <211> 41  
 <212> PRT  
 <213> Homo sapien

<400> 117

88

Met Asp Leu Ile Gln Ser Thr Ser Phe Cys Tyr Asn Ser Tyr Ile His  
 1 5 10 15

Thr Tyr Leu Ser Lys Leu Thr Leu Val His Arg His His Phe Thr Gly  
 20 25 30

Pro Ser Ser Thr Leu Cys Val Ile His  
 35 40

<210> 118  
 <211> 88  
 <212> PRT  
 <213> Homo sapien

<400> 118

Met Cys Ile Asn Leu Asn Asn Thr Gln Lys Asn Tyr Asn Leu Lys Ile  
 1 5 10 15

Ala Val Phe Asn Met Arg Ile Ile Tyr Val Cys Lys Tyr Ser Thr Lys  
 20 25 30

Lys Asn Gln Lys Cys Gly Ile Ile Leu Gln Glu Lys Ile Phe Lys Met  
 35 40 45

Glu Ser Pro Phe Met Asn Val Leu Ile Leu Lys Ser Lys Val Met Phe  
 50 55 60

Phe Tyr Asn Val Tyr Ile Ile Met Phe Thr Lys Ala Ile Lys Ser Phe  
 65 70 75 80

Gln Lys Val Leu Ile Leu Gln Ile  
 85

<210> 119  
 <211> 25  
 <212> PRT  
 <213> Homo sapien

<400> 119

Met Thr Thr Cys Phe Thr Trp Ser Tyr Phe Ala Ile Trp Thr Ile Leu  
 1 5 10 15

Leu Ser Glu Leu Ile Leu His Thr Cys  
 20 25

89

<210> 120  
 <211> 109  
 <212> PRT  
 <213> Homo sapien

<400> 120

Cys Phe Tyr Asp Leu Leu Gly Arg Pro Gly Pro Met Leu Ser Ala Gly  
 1 5 10 15

Leu Ile Phe Leu Phe Leu Phe Glu Thr Glu Ser Arg Ser Pro Ser Arg  
 20 25 30

Leu Lys Cys Ser Gly Val Ile Ser Ala His Cys Asn Leu Cys Leu Pro  
 35 40 45

Gly Ser His Glu Ser Ser Ala Ser Ala Ser Ala Val Ala Gly Thr Thr  
 50 55 60

Gly Thr Cys His His Thr Gln Leu Ile Phe Val Phe Leu Val Glu Thr  
 65 70 75 80

Gly Phe His His Val Gly Gln Asp Gly Leu Glu Pro Leu Thr Gln Val  
 85 90 95

Ile Ser Pro Pro Gln Leu Pro Lys Val Leu Gly Leu Gln  
 100 105

<210> 121  
 <211> 66  
 <212> PRT  
 <213> Homo sapien

<400> 121

Met Ser Asn Val Ile Ile Met Leu Arg Thr Ser Arg Ser Phe Ser Ile  
 1 5 10 15

Leu Thr Gly Phe Ile His Ile Leu Leu Leu Tyr Ser Asn Ile Ala Leu  
 20 25 30

Lys Val Leu Thr Val Ser Val Ala Lys Ser Ile Ile Ser Trp Thr Ile  
 35 40 45

Leu Asn Gly Met Phe Thr Arg Pro Lys Met Lys Val Leu Lys Ser Tyr  
 50 55 60

Leu Phe

90

65

<210> 122  
 <211> 41  
 <212> PRT  
 <213> Homo sapien

<400> 122

Met Pro Leu Leu Phe Lys Asn Cys Ala Val Ile Thr Val Leu Ile Leu  
 1 5 10 15

Val Tyr Leu Gly Ile Tyr Pro Ser Val Val Phe Ile Leu Ile Leu Ser  
 20 25 30

Ile Thr Leu Arg Arg Ser Ser Ser Ile  
 35 40

<210> 123  
 <211> 28  
 <212> PRT  
 <213> Homo sapien

<400> 123

Met Ser Ser Val Lys Asn Ser Lys Leu Leu Val Leu Pro Ile Pro Asn  
 1 5 10 15

Pro Tyr Leu Thr Gln Leu Ser Lys Met Phe Thr Ser  
 20 25

<210> 124  
 <211> 58  
 <212> PRT  
 <213> Homo sapien

<400> 124

Met Leu Gly Asn Leu Gly Gly Lys Pro Asn Phe Pro Pro Gly Pro Val  
 1 5 10 15

Leu Ala Pro Gly Ser Pro Arg Leu Phe Leu Leu Leu Cys Val Gly Val  
 20 25 30

Phe Phe Val Ser Lys Thr Leu Asp Asn Leu Phe Gln Ile Tyr Ser Lys  
 35 40 45

Ile Leu Lys His Cys Ile Asn Ile Lys Val  
 50 55



<210> 125  
 <211> 98  
 <212> PRT  
 <213> Homo sapien

<400> 125

Phe Leu Phe Leu Arg Gln Ser Phe Ala Leu Ala Thr Gln Ala Gly Val  
 1 5 10 15

Arg Trp Cys Asp Leu Gly Ser Pro Gln Pro Pro Pro Gly Leu Lys  
 20 25 30

Arg Leu Ser Cys Leu Ser Pro Pro Ser Arg Trp Asp Tyr Arg Pro Gly  
 35 40 45

Pro Pro His Pro Ala Asn Phe Ala Leu Pro Val Glu Met Gly Ser Leu  
 50 55 60

His Val Gly Gln Ala Gly Leu Gln Pro Leu Thr Ser Ser Asp Pro Pro  
 65 70 75 80

Ala Pro Ala Ser Gln Ser Ala Gly Thr Thr Asp Val Ser His Trp Thr  
 85 90 95

Arg Pro

<210> 126  
 <211> 45  
 <212> PRT  
 <213> Homo sapien

<400> 126

Met Lys Ile Cys Leu Lys Phe Asn Trp Asn His Gly Ile Ser His Gln  
 1 5 10 15

Phe Glu Leu Ser Asn Met Pro Asn Leu Asp Ile Leu Ile Leu Glu Asn  
 20 25 30

Gln Phe Leu Lys Ile Leu Lys Cys Ser Val Phe Arg Thr  
 35 40 45

<210> 127  
 <211> 1088  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 127

Asp Asp Ser Leu Ile Ser Ser Ala Thr Ala Ile Met Glu Ala Val Val  
 1 5 10 15

Arg Glu Trp Ile Leu Leu Glu Lys Gly Ser Ile Glu Ser Leu Arg Thr  
 20 25 30

Phe Leu Leu Thr Tyr Val Leu Gln Arg Pro Asn Leu Gln Lys Tyr Val  
 35 40 45

Arg Glu Gln Ile Leu Leu Ala Val Ala Val Ile Val Lys Arg Gly Ser  
 50 55 60

Leu Asp Lys Ser Ile Asp Cys Lys Ser Ile Phe His Glu Val Ser Gln  
 65 70 75 80

Leu Ile Ser Ser Gly Asn Pro Thr Val Gln Thr Leu Ala Cys Ser Ile  
 85 90 95

Leu Thr Ala Leu Leu Ser Glu Phe Ser Ser Ser Ser Lys Thr Ser Asn  
 100 105 110

Ile Gly Leu Ser Met Glu Phe His Gly Asn Cys Lys Arg Val Phe Gln  
 115 120 125

Glu Glu Asp Leu Arg Gln Ile Phe Met Leu Thr Val Glu Val Leu Gln  
 130 135 140

Glu Phe Ser Arg Arg Glu Asn Leu Asn Ala Gln Met Ser Ser Val Phe  
 145 150 155 160

Gln Arg Tyr Leu Ala Leu Ala Asn Gln Val Leu Ser Trp Asn Phe Leu  
 165 170 175

Pro Pro Asn Leu Gly Arg His Tyr Ile Ala Met Phe Glu Ser Ser Gln  
 180 185 190

Asn Val Leu Leu Lys Pro Thr Glu Ser Leu Arg Glu Thr Leu Leu Asp  
 195 200 205

Ser Arg Val Met Glu Leu Phe Phe Thr Val His Arg Lys Ile Arg Glu  
 210 215 220

93

His Ser Asp Met Ala Gln Asp Ser Leu Gln Cys Leu Ala Gln Leu Ala  
 225 230 235 240

Ser Leu His Gly Pro Ile Phe Pro Asp Glu Gly Ser Gln Val Asp Tyr  
 245 250 255

Leu Ala His Phe Ile Glu Gly Leu Leu Asn Thr Ile Asn Gly Ile Glu  
 260 265 270

Ile Glu Asp Ser Glu Ala Val Gly Ile Ser Ser Ile Ile Ser Asn Leu  
 275 280 285

Ile Thr Val Phe Pro Arg Asn Val Leu Thr Ala Ile Pro Ser Glu Leu  
 290 295 300

Phe Ser Ser Phe Val Asn Cys Leu Thr His Leu Thr Cys Ser Phe Gly  
 305 310 315 320

Arg Ser Ala Ala Leu Glu Glu Val Leu Asp Lys Asp Asp Met Val Tyr  
 325 330 335

Met Glu Ala Tyr Asp Lys Leu Leu Glu Ser Trp Leu Thr Leu Val Gln  
 340 345 350

Asp Asp Lys His Phe His Lys Gly Phe Phe Thr Gln His Ala Val Gln  
 355 360 365

Val Phe Asn Ser Tyr Ile Gln Cys His Leu Ala Ala Pro Asp Gly Thr  
 370 375 380

Arg Asn Leu Thr Ala Asn Gly Val Ala Ser Arg Glu Glu Glu Glu Ile  
 385 390 395 400

Ser Glu Leu Gln Glu Asp Asp Arg Asp Gln Phe Ser Asp Gln Leu Ala  
 405 410 415

Ser Val Gly Met Leu Gly Arg Ile Ala Ala Glu His Cys Ile Pro Leu  
 420 425 430

Leu Thr Ser Leu Leu Glu Glu Arg Val Thr Arg Leu His Gly Gln Leu  
 435 440 445

Gln Arg His Gln Gln Gln Leu Leu Ala Ser Pro Gly Ser Ser Thr Val  
 450 455 460

Asp Asn Lys Met Leu Asp Asp Leu Tyr Glu Asp Ile His Trp Leu Ile  
 465 470 475 480

Leu Val Thr Gly Tyr Leu Leu Ala Asp Asp Thr Gln Gly Glu Thr Pro  
 485 490 495

Leu Ile Pro Pro Glu Ile Met Glu Tyr Ser Ile Lys His Ser Ser Glu  
 500 505 510

Val Asp Ile Asn Thr Thr Leu Gln Ile Leu Gly Ser Pro Gly Glu Lys  
 515 520 525

Ala Ser Ser Ile Pro Gly Tyr Asn Arg Thr Asp Ser Val Ile Arg Leu  
 530 535 540

Leu Ser Ala Ile Leu Arg Val Ser Glu Val Glu Ser Arg Ala Ile Arg  
 545 550 555 560

Ala Asp Leu Thr His Leu Leu Ser Pro Gln Met Gly Lys Asp Ile Val  
 565 570 575

Trp Phe Leu Lys Arg Trp Ala Lys Thr Tyr Leu Leu Val Asp Glu Lys  
 580 585 590

Leu Tyr Asp Gln Ile Ser Leu Pro Phe Ser Thr Ala Phe Gly Ala Asp  
 595 600 605

Thr Glu Gly Ser Gln Trp Ile Ile Gly Tyr Leu Leu Gln Lys Val Ile  
 610 615 620

Ser Asn Leu Ser Val Trp Ser Ser Glu Gln Asp Leu Ala Asn Asp Thr  
 625 630 635 640

Val Gln Leu Leu Val Thr Leu Val Glu Arg Arg Glu Arg Ala Asn Leu  
 645 650 655

Val Ile Gln Cys Glu Asn Trp Trp Asn Leu Ala Lys Gln Phe Ala Ser  
 660 665 670

Arg Ser Pro Pro Leu Asn Phe Leu Ser Ser Pro Val Gln Arg Thr Leu  
 675 680 685

Met Lys Ala Leu Val Leu Gly Gly Phe Ala His Met Asp Thr Glu Thr  
 690 695 700

Lys Gln Gln Tyr Trp Thr Glu Val Leu Gln Pro Leu Gln Gln Arg Phe  
705 710 715 720

Leu Arg Val Ile Asn Gln Glu Asn Phe Gln Gln Met Cys Gln Gln Glu  
725 730 735

Glu Val Lys Gln Glu Ile Thr Ala Thr Leu Glu Ala Leu Cys Gly Ile  
740 745 750

Ala Glu Ala Thr Gln Ile Asp Asn Val Ala Ile Leu Phe Asn Phe Leu  
755 760 765

Met Asp Phe Leu Thr Asn Cys Ile Gly Leu Met Glu Val Tyr Lys Asn  
770 775 780

Thr Pro Glu Thr Val Asn Leu Ile Ile Glu Val Phe Val Glu Val Ala  
785 790 795 800

His Lys Gln Ile Cys Tyr Leu Gly Glu Ser Lys Ala Met Asn Leu Tyr  
805 810 815

Glu Ala Cys Leu Thr Leu Leu Gln Val Tyr Ser Lys Asn Asn Leu Gly  
820 825 830

Arg Gln Arg Ile Asp Val Thr Ala Glu Glu Glu Gln Tyr Gln Asp Leu  
835 840 845

Leu Leu Ile Met Glu Leu Leu Thr Asn Leu Leu Ser Lys Glu Phe Ile  
850 855 860

Asp Phe Ser Asp Thr Asp Glu Val Phe Arg Gly His Glu Pro Gly Gln  
865 870 875 880

Ala Ala Asn Arg Ser Val Ser Ala Ala Asp Val Val Leu Tyr Gly Val  
885 890 895

Asn Leu Ile Leu Pro Leu Met Ser Gln Asp Leu Leu Lys Phe Pro Thr  
900 905 910

Leu Cys Asn Gln Tyr Tyr Lys Leu Ile Thr Phe Ile Cys Glu Ile Phe  
915 920 925

Pro Glu Lys Ile Pro Gln Leu Pro Glu Asp Leu Phe Lys Ser Leu Met

96

930

935

940

Tyr Ser Leu Glu Leu Gly Met Thr Ser Met Ser Ser Glu Val Cys Gln  
 945 950 955 960

Leu Cys Leu Glu Ala Leu Thr Pro Leu Ala Glu Gln Cys Ala Lys Ala  
 965 970 975

Gln Glu Thr Asp Ser Pro Leu Phe Leu Ala Thr Arg His Phe Leu Lys  
 980 985 990

Leu Val Phe Asp Met Leu Val Leu Gln Lys His Asn Thr Glu Met Thr  
 995 1000 1005

Thr Ala Ala Gly Glu Ala Phe Tyr Thr Leu Val Cys Leu His Gln  
 1010 1015 1020

Ala Glu Tyr Ser Glu Leu Val Glu Thr Leu Leu Ser Ser Gln Gln  
 1025 1030 1035

Asp Pro Val Ile Tyr Gln Arg Leu Ala Asp Ala Phe Asn Lys Leu  
 1040 1045 1050

Thr Ala Ser Ser Thr Pro Pro Thr Leu Asp Arg Lys Gln Lys Met  
 1055 1060 1065

Ala Phe Leu Lys Ser Leu Glu Glu Phe Met Ala Asn Val Gly Gly  
 1070 1075 1080

Leu Leu Cys Val Lys  
 1085

&lt;210&gt; 128

&lt;211&gt; 33

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 128

Met Glu Lys Tyr Phe Ser Gly Cys Arg Leu Glu Phe Asp Tyr Gln Ile  
 1 5 10 15

Asp Phe Cys Glu Leu His Phe Asn Ser Val Gln Asn Phe Leu Thr Ala  
 20 25 30

Leu

<210> 129  
 <211> 154  
 <212> PRT  
 <213> Homo sapien

<400> 129

Met Val Ile Leu Ser Phe Lys His Gly Gly Ile Val Ala Tyr Arg Met  
 1 5 10 15

Ser Glu Pro Tyr Ala Ser Leu Leu Asp Ile Tyr Ile Gly Ser His Phe  
 20 25 30

Ser Cys Ile Ile Tyr Trp Asp Val Phe Pro Ala Phe Ser Val Pro Ile  
 35 40 45

Asn Asn Thr Gln Asn Thr His Thr Pro Asn Pro Gly Ala Glu Asn Thr  
 50 55 60

Gly Ala Pro Thr Cys Pro Pro Gly Gly Asp Thr Val Arg Ser Pro Arg  
 65 70 75 80

Leu Gln Asn Ser Pro Gln His Asn Tyr Arg Arg Arg Asn Arg Ala Thr  
 85 90 95

Glu Tyr Arg His Arg Ala Thr Arg Asp Asp Phe Thr Pro Arg Pro Tyr  
 100 105 110

Asp Ala His Gly Asn Thr Lys Thr Arg Arg Gly Asn His Ile Arg Thr  
 115 120 125

Arg Glu Asn Gly Arg Trp Arg Pro Arg Ala Lys Pro Thr Lys Ser Thr  
 130 135 140

Thr His Arg Thr Thr His Asn Ala Arg Pro  
 145 150

<210> 130  
 <211> 37  
 <212> PRT  
 <213> Homo sapien

<400> 130

Met Phe Arg Leu Leu Leu Leu Asn Met Lys Pro Pro Cys Trp Leu  
 1 5 10 15

Asp Arg Ile Asn Phe Ile His Val Met Glu Asn Ser Ile Leu Gln Ile  
                   20                  25                  30

Trp Ser Pro Ile Ile  
                   35

<210> 131  
 <211> 72  
 <212> PRT  
 <213> Homo sapien

<400> 131

Met Ile Ser Trp Lys Ser Ile Leu His Pro Gly Arg Tyr Met Leu Ile  
   1                  5                  10                  15

Tyr Met Gly Val Lys Tyr His Glu Val Ser Thr Phe Ser Gln Lys Gln  
                   20                  25                  30

Arg Lys Glu Lys Glu Ile Tyr Ser His Pro Thr His Ile His Arg Tyr  
                   35                  40                  45

Gly Lys Tyr His Gln Ala Leu Thr Leu Val Asn Leu Gly Glu Gly Tyr  
                   50                  55                  60

Met Gly Phe Gln Cys Thr Ser Ala  
   65                  70

<210> 132  
 <211> 43  
 <212> PRT  
 <213> Homo sapien

<400> 132

Met Pro Ser Phe Ser Pro Arg Gly Pro Leu Trp Pro Cys Val Pro Pro  
   1                  5                  10                  15

Ala Phe Phe Phe Val Phe Cys Phe Phe Cys Cys Arg Ile His Gln Glu  
                   20                  25                  30

Lys Leu Leu Met Val Arg Arg Glu Thr Trp Leu  
                   35                  40

<210> 133  
 <211> 61  
 <212> PRT



99

&lt;213&gt; Homo sapien

&lt;400&gt; 133

Met Asp Pro Pro Gly Gln Val Leu Phe Ile His Ile Ser Leu Gly Phe  
 1 5 10 15

Leu Pro Leu Gly Asn Asn Cys Pro Ser Ile Tyr Leu Val Phe Phe Leu  
 20 25 30

Val Thr Leu Ile Lys Leu Leu Thr Ser Thr Tyr Asn Ile Val Lys Pro  
 35 40 45

Glu Tyr Leu Ile Leu Thr Val Lys Lys Asn Met Met Thr  
 50 55 60

&lt;210&gt; 134

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 134

Met Arg Ser Ile Phe Leu Gln Arg Pro Pro Leu Asn Ile Val Pro Gln  
 1 5 10 15

Phe Ala Ala Lys Asn Ile Leu Ser Leu Lys Gln Arg Gly Val Ser Leu  
 20 25 30

Glu Leu Pro Ile Phe Leu Ser Cys Gln Lys Lys Ala Leu Arg Val Ser  
 35 40 45

Pro Cys Ile Tyr Ser Cys Val Pro Leu Cys Glu Phe Val Phe Pro Ser  
 50 55 60

Thr His Phe Pro His Asn His Gln Arg Lys Gly  
 65 70 75

&lt;210&gt; 135

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 135

Met Glu Asn Val Thr Arg His Met Ser Val Ala Val Lys Phe Gln Asn  
 1 5 10 15

Ser Ser Asp Ser Arg Gln Glu Ala Lys Leu Asn Leu Ala Ser Phe Asn

100

20

25

30

Leu Asn Ser Pro Leu Trp His Lys Ser Thr Leu Asn Phe Lys Val Asn  
 35 40 45

Arg Gly Pro Phe Ser Pro Lys His Lys Phe Pro Leu Ala Val Cys Gln  
 50 55 60

Ser Gly Leu Ile Asn Gln Leu Leu His Cys  
 65 70

<210> 136  
 <211> 31  
 <212> PRT  
 <213> Homo sapien

<400> 136

Met His Gly Thr Ser Leu Pro Gln Leu Ala Ala Leu Gly Asp Phe Ser  
 1 5 10 15

Ser Ser Leu Gly Asp Cys Val Ser His Leu Glu Ser Met Cys Val  
 20 25 30

<210> 137  
 <211> 56  
 <212> PRT  
 <213> Homo sapien

<400> 137

Met Leu Ala Glu Pro Ser Tyr Gly Pro Gln Ser Pro Pro Pro Pro Pro  
 1 5 10 15

His Arg His Gly Leu Asn Gly Ser Pro Arg Phe Phe Leu Pro Arg Arg  
 20 25 30

Pro Ala Arg Ala His Pro Ser Gln Leu Arg Arg Ser Ser Ser Ile Arg  
 35 40 45

Gly Pro Ser Arg Leu Tyr Ile Asp  
 50 55